WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :	A1	(11) International Publication Number: WO 95/20681
C12Q 1/68, G06F 15/00		(43) International Publication Date: 3 August 1995 (03.08.95)
(21) International Application Number: PCT/US: (22) International Filing Date: 27 January 1995 (2) (30) Priority Data: 08/187,530 27 January 1994 (27.01.94) 08/282,955 29 July 1994 (29.07.94) (71) Applicant: INCYTE PHARMACEUTICALS, INC. 3330 Hillview Avenue, Palo Alto, CA 94304 (US) (72) Inventors: SEILHAMER, Jeffrey, J.; 12555 La Cre Altos Hills, CA 94022 (US). SCOTT, Randal, W Sun-Mor, Mountain View, CA 94040 (US). (74) Agents: CAGE, Kenneth, L. et al.; Willian Brinks Hofe & Lione, 2000 K Street, N.W., Suite 200, Washing 20006-1809 (US).	27.01.9 [US/US] [US/US] esta, L 7.; 1314	EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ). Published With international search report.
(54) Title: COMPARATIVE GENE TRANSCRIPT ANALYSIS		

(54) Title: COMPARATIVE GENE TRANSCRIPT ANALYSIS

(57) Abstract

χŝ

A method and system for quantifying the relative abundance of gene transcripts in a biological specimen. One embodiment of the method generates high-throughput sequence-specific analysis of multiple RNAs or their corresponding cDNAs (gene transcript imaging analysis). Another embodiment of the method produces a gene transcript imaging analysis by the use of high-throughput cDNA sequence analysis. In addition, the gene transcript imaging can be used to detect or diagnose a particular biological state, disease, or condition which is correlated to the relative abundance of gene transcripts in a given cell or population of cells. The invention provides a method for comparing the gene transcript image analysis from two or more different biological specimens in order to distinguish between the two specimens and identify one or more genes which are differentially expressed between the two specimens.